

WHAT IS CLAIMED IS:

1. A recycling system, comprising:

a frame including a table and a base mounted on the table; and

a cutting device mounted on the table of the frame and including a

5 composite pneumatic cylinder mounted on the base, a first piston rod movably mounted in the pneumatic cylinder, a push plate mounted on a distal end of the first piston rod to move therewith, a second piston rod movably mounted in the first piston rod and extended through the push plate, a connecting rod mounted on a distal end of the second piston rod to move therewith, and a disk cutter
10 mounted on the connecting rod to move therewith.

2. The recycling system in accordance with claim 1, wherein the frame further includes a stand, wherein the table is mounted on an upper portion of the stand.

3. The recycling system in accordance with claim 2, wherein the
15 frame further includes a tray mounted on a lower portion of the stand.

4. The recycling system in accordance with claim 1, further comprising a substantially inverted U-shaped filter net mounted on the table of the frame.

5. The recycling system in accordance with claim 1, wherein the base
20 of the frame is formed with a guide slot, and the connecting rod of the cutting device has a distal end slidably mounted in the guide slot of the base.

6. The recycling system in accordance with claim 1, wherein the cutting device further includes two spaced extensions each mounted on the push plate by a screw member, and two holding rollers each rotatably mounted on a respective one of the extensions by a connecting member.

5 7. The recycling system in accordance with claim 6, wherein the disk cutter is located between the holding rollers.

8. The recycling system in accordance with claim 1, wherein the cutting device further includes a gas connector mounted in the pneumatic cylinder, a pipe having a first end mounted on the gas connector, a pneumatic wrench mounted on the base of the frame by a plurality of support members and having a first end mounted on a second end of the pipe and a second end provided with a holding member, a drive rod extended through the base of the frame and having a lower end mounted on and rotated by the holding member of the pneumatic wrench, a gear rotatably mounted on the base of the frame and mounted on a second end of the drive rod to rotate therewith so that the gear is driven to rotate by the holding member of the pneumatic wrench.

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9. The recycling system in accordance with claim 8, wherein the cutting device further includes a roller mounted in the base of the frame and mounted on the drive rod, and a plurality of nuts mounted on the drive rod and located between the base of the frame and the holding member of the pneumatic wrench.

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10. The recycling system in accordance with claim 8, wherein the cutting device further includes a support roller mounted on the base of the frame by a connecting member and located beside the gear, and a control valve connected to the pneumatic cylinder to control movement of the disk cutter and
5 to control rotation of the gear.

11. The recycling system in accordance with claim 1, further comprising a dividing device mounted on the table of the frame and includes a pneumatic cylinder mounted on the base, a piston rod movably mounted in the pneumatic cylinder, a push plate mounted on a distal end of the piston rod to
10 move therewith, a plate-shaped cutter mounted on the push plate by a plurality of screw members to move therewith, and two holding rollers each rotatably mounted on the base of the frame by a screw member.

12. The recycling system in accordance with claim 11, wherein the dividing device further includes two guide tracks each mounted on the base of
15 the frame by a plurality of screw members and each formed with a guide channel, and the cutter of the dividing device is movably mounted between the two guide tracks and has two sides each slidably mounted in the guide channel.

13. The recycling system in accordance with claim 11, wherein the dividing device further includes a control valve connected to the pneumatic
20 cylinder to control movement of the cutter.

14. The recycling system in accordance with claim 1, further comprising a compressing device mounted on the table of the frame and

includes a box, a hydraulic cylinder mounted on a top plate of the box, a piston rod movably mounted in the hydraulic cylinder and having a distal end extended through the top plate of the box, and a compression disk mounted on the distal end of the piston rod to move therewith and movably mounted in the
5 box.

15. The recycling system in accordance with claim 14, wherein the compressing device further includes a flow channel formed in the top plate of the box and communicating with the hydraulic cylinder, a pneumatic pump mounted on the top plate of the box and communicating with the flow channel,
10 a pressure gauge mounted on the top plate of the box and communicating with the flow channel to indicate the pressure values of the hydraulic cylinder when the piston rod is moved downward to compress a can, a control valve mounted on the hydraulic cylinder to control the pneumatic pump to drive the piston rod to move in the hydraulic cylinder reciprocatingly, and a safety switch mounted
15 on the box.